



Thaw and Culture Details

Cell Line Name	JHU088i
WiCell Lot Number	DB41240
Provider	Johns Hopkins University – Laboratory of Dr. Lewis Becker
Banked By	Johns Hopkins University – Laboratory of Dr. Lewis Becker
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate. WiCell recommends thawing using ROCK Inhibitor for best results.
Culture Platform	Feeder Independent
	Medium: E8
	Matrix: Vitronectin
Protocol	WiCell Feeder Independent E8 Medium Protocol
Passage Number	p4 These cells were cultured for 4 passages post reprogramming prior to freeze. Add +1 to the passage number to best represent the overall passage number of the cells at thaw.
Date Vialied	23-May-2016
Vial Label	P88 P4 2X10 ⁶ 5/23/16
Biosafety and Use Information	This cell line is of human origin. Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells. Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans.

Testing Performed by WiCell

Test Description	Test Provider	Test Method	Test Specification	Result
Karyotype by G-banding	WiCell	SOP-CH-003	Expected karyotype	See Report
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	Recoverable attachment after passage	Pass
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass
Sterility	Steris	ST/07	Negative	Pass
Mycoplasma	WiCell	SOP-CH-044	Negative	Pass

Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- Embryoid bodies
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGA^{EX})



Approval Date	Quality Assurance Approval
26-August-2016	<p style="text-align: right;">3/27/2019</p> <p>X <u>JKG</u></p> <p>JKG Quality Assurance Signed by Gay, Jemina</p>

Date Reported: Tuesday, March 19, 2019

Cell Line: JHU088i-DB41240 14252

Passage#: 5

Date of Sample: 3/8/2019

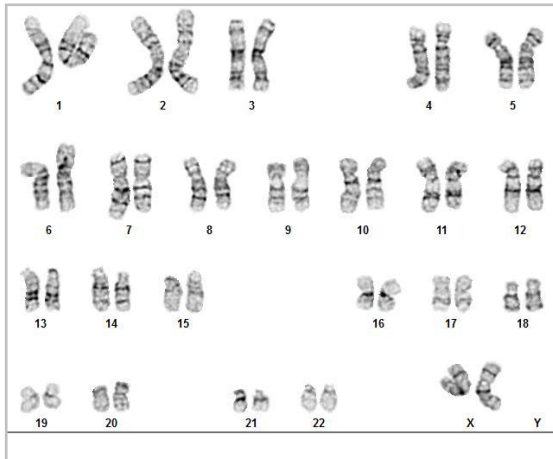
Specimen: Human IPS

Results: 46,XX

Cell Line Sex: Female

Reason for Testing: Lot Release Testing

Investigator: [REDACTED] WiCell



Cell: 6

Slide: G02

Slide Type: Karyotype

Total Counted: 20

Total Analyzed: 8

Total Karyogrammed: 4

Band Resolution: 400 - 550

Interpretation:

This is a normal karyotype; no clonal abnormalities were detected at the stated band level of resolution.

Completed by: [REDACTED], CG(ASCP)

Reviewed and Interpreted by: [REDACTED], PhD, FACMG

Date: _____ **Sent By:** _____ **Sent To:** _____ **QC Review By:** _____

Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e., mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

This assay was conducted solely for listed investigator/institution. The results of this assay are for research use only. Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.

Short Tandem Repeat Analysis

Department of Pathology and Laboratory Medicine
TRIP Laboratory (Molecular)
<https://research.pathology.wisc.edu/trip/>
(608) 265-9168

characterization@wicell.org
(608) 316-4145

Sample Report:
14252-STR
Sample Name on Tube: 14252-STR
82.7 ng/ μ L, (A260/280=2.01)
Sample Type: Cells
Cell Count: ~2 million cells

Requestor:
WiCell Research Institute
Quality Assurance Department

Receive Date: 03/18/19
Report Sent: 03/25/19
Assay Date: 03/20/19
File Name: STR 190321 wmr
Report Date: 03/25/19

STR Locus	STR Genotype Repeat #	STR Genotype
FGA	16-18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26-30, 31.2, 43.2, 44.2,45.2, 46.2	Identifying information has been redacted to protect donor confidentiality. If more information is required, please, contact WiCell's Technical Support .
TPOX	6-13	
D8S1179	7-18	
vWA	10-22	
Amelogenin	X,Y	
Penta_D	2.2, 3.2, 5, 7-17	
CSF1PO	6-15	
D16S539	5, 8-15	
D7S820	6-14	
D13S317	7-15	
D5S818	7-16	
Penta_E	5-24	
D18S51	8-10, 10.2, 11-13, 13.2, 14-27	
D21S11	24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38	
TH01	4-9,9.3,10-11,13.3	
D3S1358	12-20	

Results: Based on the 14252-STR cells submitted by WiCell QA dated and received on 03/18/19, this sample (Label on Tube: 14252-STR) defines matches the STR profile of the human stem cell line JHU088i comprising 26 allelic polymorphisms across the 15 STR loci analyzed.

Interpretation: No STR polymorphisms other than those corresponding to the human JHU088i stem cell line were detected and the concentration of DNA required to achieve an acceptable STR genotype (signal/ noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. This result suggests that the 14252-STR sample submitted corresponds to the JHU088i stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

Sensitivity: Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is ~2-5%.

X *RMB*

Digitally Signed on 03/25/19

BA
TRIP Laboratory, Molecular

X *WMR*

Digitally Signed on 03/25/19

, PhD, Director / Co-Director
UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Testing was accomplished by analysis of human genetic polymorphisms at STR loci. This methodology has not yet been approved by the FDA and is for investigational use only.

Acknowledge TRIP in your publications, posters & presentations. For details, see: <http://www.pathology.wisc.edu/research/trip/acknowledging>
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Native Product Sterility Report



WiCell
504 S Rosa Road, Rm 101
Madison, WI 53719

SAMPLE #: 18121076
DATE RECEIVED: 13-Dec-18
TEST INITIATED: 17-Dec-18
TEST COMPLETED: 31-Dec-18

SAMPLE NAME / DESCRIPTION: LUEL8363i-3 WB66952 14169, JHU088i DB41240 14170, JHU132i DB36272 14171, JHU102i DB41279 14172, JHU103i DB36236 14173, iPS DF19-9-7T DB36826 14174, iPS DF4-3-7T.A DB36837 14175, iPS DF6-9-9T.B DB36844 14176, MIRJT7i-mND2-0 DB36854 14177, IISH1i-BM1 DB36864 14178, IISH2i-BM9 DB36871 14179, IISH3i-CB6 DB36881 14180, WA01 DB36785 14181, WA07 DB36888 14182, WA09 DB36899 14183, WA24 DB36798 14184, JHU155i DB41365 14185, JHU184i DB41392 14186, JHU142i DB41344 14187, WA09 NA65899 14189.

UNIQUE IDENTIFIER: NA

TEST RESULTS:

# Tested	# Positives (Growth)	- Control
20	1	2 Negatives

TEST SUMMARY:

# Samples	Media Type	Volume (mL)	Incubation Temperature (° C)	Incubation Duration (Days)
20	TSB	40	20-25	14
20	FTG	40	30-35	14

REFERENCE: Processed according to LAB-003: Sterility Test Procedure

PD #: 000053

TEST METHODOLOGY: USP - Direct Transfer

COMMENTS: Sample labeled P142 P6 6/16/16 0.9M is positive in TSB and FTG media.

Reported as per packing slip.

REVIEWED BY _____

DATE 02 JAN 19

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. This test report shall not be reproduced, except in full, without prior written approval. Liability is limited to the costs of the tests. Results applied to samples as received.



Mycoplasma Assay Report

PCR-based assay performed by WiCell

Lot Release Testing

05Mar19

FORM SOP-CH-044.03

Version B Edition 01

#	Sample Name	Result	Comments/Suggestions
1	JHU088i-DB41240 14252	Negative	Band was not seen at 270bp, indicating the absence of mycoplasma.
2	Positive (+) Control	Positive	
3	Negative (-) Control	Negative	

Reported by: Katie Remondini, Cell Culture Specialist

Reviewed by: Sondra Minter, Cell Culture Specialist

Date: _____ **Sent By:** _____ **Sent To:** _____

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A gel image is available upon request.